C24

84. (New) An isolated antibody or fragment thereof which specifically binds a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:2.

85. (New) The antibody or fragment thereof of claim 84, wherein said polypeptide is glycosylated.

86. (New) The antibody or fragment thereof of claim 84, which is polyclonal.

87. (New) The antibody or fragment thereof of claim 84 which is selected from the group consisting of

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

88. (New) The antibody or fragment thereof of claim 84, which is labeled.

89. (New) The antibody or fragment thereof of claim 88, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

90. (New) The antibody or fragment thereof of claim 84, which specifically

C

binds to said polypeptide in a Western blot.

91. (New) The antibody or fragment thereof of claim 84, which specifically binds to said polypeptide in an ELISA.

92. (New) The antibody or fragment thereof of claim 84, which specifically binds to said polypeptide in a competitive-binding assay.

93. (New) The antibody or fragment thereof of claim 84, which specifically binds to said polypeptide in a radioimmunoassay.

94. (New) An isolated cell that produces the antibody or fragment thereof of claim 84.

95. (New) A hybridoma that produces the antibody of fragment thereof of claim 84.

96. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 84; and

b) detecting the DR4 protein in the biological sample.

97. (New) A composition comprising the antibody or fragment thereof of claim 84, and a carrier.

98. (New) The antibody or fragment thereof of claim 84, which is an antagonist of the polypeptide of SEQ ID NO:2.

99. (New) The antibody or fragment thereof of claim 84, which is an agonist of the polypeptide of SEQ ID NO:2.

100. (New) A method of producing the antibody or fragment thereof of claim 84 comprising:

a) introducing an immunogenic epitope of a polypeptide consisting of amino acids 1-468 of SEQ ID NO:2 into an animal; and

b) recovering said antibody or fragment thereof.

101. (New) An isolated monoclonal antibody or fragment thereof which specifically binds a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:2.

102. (New) The antibody or fragment thereof of claim 101, wherein said polypeptide is glycosylated.

103. (New) The antibody or fragment thereof of claim 101, which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

104. (New) The antibody or fragment thereof of claim 101, which is labeled.

105. (New) The antibody or fragment thereof of claim 104, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

106. (New) The antibody or fragment thereof of claim 101, which specifically binds to said protein in a Western blot.

107. (New) The antibody or fragment thereof of claim 101, which specifically binds to said polypeptide in an ELISA.

108. (New) The antibody or fragment thereof of claim 101, which specifically binds to said polypeptide in a competitive-binding assay.

109. (New) The antibody or fragment thereof of claim 101, which specifically binds to said polypeptide in a radioimmunoassay.

110. (New) An isolated cell that produces the antibody or fragment thereof of claim 101.

111. (New) A hybridoma that produces the antibody of fragment thereof of claim 101.

112. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 101; and

b) detecting the DR4 protein in the biological sample.

113. (New) A composition comprising the antibody or fragment thereof of claim 101, and a carrier.

114. (New) The antibody or fragment thereof of claim 101, which is an antagonist of the polypeptide of SEQ ID NO:2.

115. (New) The antibody or fragment thereof of claim 101, which is an agonist of the polypeptide of SEQ ID NO:2.

116. (New) A method of producing the antibody or fragment thereof of claim 101 comprising:

a) introducing an immunogenic epitope of a polypeptide consisting of amino acids 1-468 of SEQ ID NO:2 into an animal; and

b) recovering said antibody or fragment thereof.

Sub E3

117. (New) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:2.

39
118. (New) The antibody or fragment thereof of claim 38, wherein said polypeptide is glycosylated.

40
119. (New) The antibody or fragment thereof of claim 38, which is polyclonal.

41
120. (New) The antibody or fragment thereof of claim 38, which is monoclonal.

42
121. (New) The antibody or fragment thereof of claim 38, which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

43
122. (New) The antibody or fragment thereof of claim 38, which is labeled.

C

123. (New) The antibody or fragment thereof of claim 122, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

124. (New) The antibody or fragment thereof of claim 117, which specifically binds to said polypeptide in a Western blot.

125. (New) The antibody or fragment thereof of claim 117, which specifically binds to said polypeptide in an ELISA.

126. (New) The antibody or fragment thereof of claim 117, which specifically binds to said polypeptide in a competitive-binding assay.

127. (New) The antibody or fragment thereof of claim 117, which specifically binds to said polypeptide in a radioimmunoassay.

128. (New) An isolated cell that produces the antibody or fragment thereof of claim 117.

129. (New) A hybridoma that produces the antibody of fragment thereof of claim 117.

130. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 117; and

b) detecting the DR4 protein in the biological sample.

131. (New) A composition comprising the antibody or fragment thereof of claim 117, and a carrier.

132. (New) The antibody or fragment thereof of claim 117, which is an antagonist of the polypeptide of SEQ ID NO:2.

133. (New) The antibody or fragment thereof of claim 117, which is an agonist of the polypeptide of SEQ ID NO:2.

134. (New) A method of producing the antibody or fragment thereof of claim 117 comprising:

a) introducing an immunogenic epitope of a polypeptide consisting of amino acids 24-238 of SEQ ID NO:2 into an animal; and

b) recovering said antibody or fragment thereof.

135. (New) An isolated antibody or fragment thereof that specifically binds a polypeptide as it is naturally expressed on the surface of a cell, said polypeptide comprising

amino acids 24 to 468 of SEQ ID NO:2.

59
136. (New) The antibody or fragment thereof of claim 58, wherein said cell surface-expressed polypeptide is glycosylated.

60
137. (New) The antibody or fragment thereof of claim 58, which is polyclonal.

61
138. (New) The antibody or fragment thereof of claim 58, which is monoclonal.

62
139. (New) The antibody or fragment thereof of claim 58, which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

63
140. (New) The antibody or fragment thereof of claim 58, which is labeled.

64
141. (New) The antibody or fragment thereof of claim 63, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

142. (New) The antibody or fragment thereof of claim 135, which specifically binds to said polypeptide in a Western blot.

143. (New) The antibody or fragment thereof of claim 135, which specifically binds to said polypeptide in an ELISA.

144. (New) The antibody or fragment thereof of claim 135, which specifically binds to said polypeptide in a competitive-binding assay.

145. (New) The antibody or fragment thereof of claim 135, which specifically binds to said polypeptide in a radioimmunoassay.

146. (New) An isolated cell that produces the antibody or fragment thereof of claim 135.

147. (New) A hybridoma that produces the antibody of fragment thereof of claim 135.

148. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 135; and

b) detecting the DR4 protein in the biological sample.

149. (New) A composition comprising the antibody or fragment thereof of claim 135, and a carrier.

150. (New) The antibody or fragment thereof of claim 135, which is an antagonist of the polypeptide of SEQ ID NO:2.

151. (New) The antibody or fragment thereof of claim 135, which is an agonist of the polypeptide of SEQ ID NO:2.

152. (New) A method of producing the antibody or fragment thereof of claim 135 comprising:

a) introducing an immunogenic epitope of a polypeptide consisting of amino acids 1-468 of SEQ ID NO:2 into an animal; and

b) recovering said antibody or fragment thereof.

153. (New) An isolated antibody or fragment thereof which specifically binds a polypeptide consisting of amino acids 1 to 468 of SEQ ID NO:2, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 9 contiguous amino acids of SEQ ID NO:2.

154. (New) The isolated antibody or fragment thereof of claim 153, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 15 ~~15-30~~ contiguous amino acids of SEQ ID NO:2.

155. (New) The antibody or fragment thereof of claim 153, wherein said antibody or fragment thereof specifically binds a polypeptide selected from the group consisting of:

a) a polypeptide consisting of amino acids 24 to 468 of SEQ ID NO: 2;

b) a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO: 2;

c) a polypeptide consisting of amino acids 132 to 221 of SEQ ID NO: 2;

d) a polypeptide consisting of amino acids 35 to 92 of SEQ ID NO: 2;

e) a polypeptide consisting of amino acids 114 to 160 of SEQ ID NO: 2;

f) a polypeptide consisting of amino acids 169 to 240 of SEQ ID NO: 2;

g) a polypeptide consisting of amino acids 239 to 264 of SEQ ID NO: 2;

h) a polypeptide consisting of amino acids 265 to 468 of SEQ ID NO: 2;

i) a polypeptide consisting of amino acids 267 to 298 of SEQ ID NO: 2;

j) a polypeptide consisting of amino acids 330 to 364 of SEQ ID NO: 2;

k) a polypeptide consisting of amino acids 391 to 404 of SEQ

ID NO: 2;

l) a polypeptide consisting of amino acids 418 to 465 of SEQ ID NO: 2;

m) a polypeptide consisting of amino acids 379 to 422 of SEQ ID NO: 2;

n) a polypeptide consisting of a portion of SEQ ID NO:2, wherein said portion comprises the amino acid sequence of at least 30 contiguous amino acids of SEQ ID NO:2; and

o) a polypeptide consisting of a portion of SEQ ID NO:2, wherein said portion comprises the amino acid sequence of at least 50 contiguous amino acids of SEQ ID NO:2.

138
156. (New) An antibody or fragment thereof obtained from an animal that has been immunized with a polypeptide consisting of amino acids 1 to 468 of SEQ ID NO:2, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 9 contiguous amino acids of SEQ ID NO:2.

139 138
157. (New) The antibody or fragment thereof of claim 156, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 15 ~~15-30~~ contiguous amino acids of SEQ ID NO:2.

140 138
158. (New) The antibody or fragment thereof of claim 156, wherein said polypeptide is selected from the group consisting of:

a) a polypeptide consisting of amino acids 24 to 468 of SEQ ID NO: 2;

b) a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO: 2;

c) a polypeptide consisting of amino acids 132 to 221 of SEQ ID NO: 2;

d) a polypeptide consisting of amino acids 35 to 92 of SEQ ID NO: 2;

e) a polypeptide consisting of amino acids 114 to 160 of SEQ ID NO: 2;

f) a polypeptide consisting of amino acids 169 to 240 of SEQ ID NO: 2;

g) a polypeptide consisting of amino acids 239 to 264 of SEQ ID NO: 2;

h) a polypeptide consisting of amino acids 265 to 468 of SEQ ID NO: 2;

i) a polypeptide consisting of amino acids 267 to 298 of SEQ ID NO: 2;

j) a polypeptide consisting of amino acids 330 to 364 of SEQ ID NO: 2;

k) a polypeptide consisting of amino acids 391 to 404 of SEQ ID NO: 2;

l) a polypeptide consisting of amino acids 418 to 465 of SEQ

ID NO: 2;

m) a polypeptide consisting of amino acids 379 to 422 of SEQ ID NO: 2;

n) a polypeptide consisting of a portion of SEQ ID NO:2, wherein said portion comprises the amino acid sequence of at least 30 contiguous amino acids of SEQ ID NO:2; and

o) a polypeptide consisting of a portion of SEQ ID NO:2, wherein said portion comprises the amino acid sequence of at least 50 contiguous amino acids of SEQ ID NO:2.

74
159. (New) An isolated antibody or fragment thereof which specifically binds the extracellular domain of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

75 74
160. (New) The antibody or fragment thereof of claim 159, wherein said polypeptide is glycosylated.

77 74
161. (New) The antibody or fragment thereof of claim 159, which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

C

78 74
162. (New) The antibody or fragment thereof of claim 159, which is labeled.

79 78
163. (New) The antibody or fragment thereof of claim 162, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

80 74
164. (New) The antibody or fragment thereof of claim 159, which specifically binds to said extracellular domain in a Western blot.

81 74
165. (New) The antibody or fragment thereof of claim 159, which specifically binds to said extracellular domain in an ELISA.

82 74
166. (New) The antibody or fragment thereof of claim 159, which specifically binds to said extracellular domain in a competitive-binding assay.

83 74
167. (New) The antibody or fragment thereof of claim 159, which specifically binds to said extracellular domain in a radioimmunoassay.

84
168. (New) An isolated cell that produces the antibody or fragment thereof of claim 159. 74

C

169. (New) A hybridoma that produces the antibody of fragment thereof of claim 159.

170. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 159; and

b) detecting the DR4 protein in the biological sample.

171. (New) A composition comprising the antibody or fragment thereof of claim 159, and a carrier.

172. (New) The antibody or fragment thereof of claim 159, which is an antagonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

173. (New) The isolated antibody fragment of claim 159, which is an agonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

174. (New) A method of producing the isolated antibody or fragment thereof of claim 159 comprising:

a) introducing an immunogenic epitope of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853 into an animal; and

or fragment thereof

b) recovering said antibody ~~fragment~~.

89
175. (New) An isolated monoclonal antibody or fragment thereof which specifically binds the extracellular domain of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

90 89
176. (New) The antibody or fragment thereof of claim 175, wherein said polypeptide is glycosylated.

91 89
177. (New) The antibody or fragment thereof of claim 175 which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

92 89
178. (New) The antibody or fragment thereof of claim 175, which is labeled.

93 92
179. (New) The antibody or fragment thereof of claim 178, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

94 89
180. (New) The antibody or fragment thereof of claim 175, which specifically binds to said polypeptide in a Western blot.

95 89
181. (New) The antibody or fragment thereof of claim 175, which specifically binds to said polypeptide in an ELISA.

96 89
182. (New) The antibody or fragment thereof of claim 175, which specifically binds to said polypeptide in a competitive-binding assay.

97 89
183. (New) The antibody or fragment thereof of claim 175, which specifically binds to said polypeptide in a radioimmunoassay.

98 89
184. (New) An isolated cell that produces the antibody or fragment thereof of claim 175.

99 89
185. (New) A hybridoma that produces the antibody of fragment thereof of claim 175.

sub E 7
186. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 175; and

b) detecting the DR4 protein in the biological sample.

100

C

187. (New) A composition comprising the antibody or fragment thereof of claim 175, and a carrier.

188. (New) The antibody or fragment thereof of claim 175, which is an antagonist of the polypeptide of encoded by the cDNA contained in ATCC Deposit No. 97853.

189. (New) The antibody or fragment thereof of claim 175, which is an agonist of the polypeptide of encoded by the cDNA contained in ATCC Deposit No. 97853.

190. (New) A method of producing the isolated antibody or fragment thereof of claim 175 comprising:

a) introducing an immunogenic epitope of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853 into an animal; and

b) recovering said antibody ~~fragment~~ or fragment thereof.

191. (New) An isolated antibody or fragment thereof obtained from an animal that has been immunized with the extracellular domain of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

192. (New) The antibody or fragment thereof of claim 191, wherein said polypeptide is glycosylated.

105
193. (New) The antibody or fragment thereof of claim 103, which is polyclonal.

106
194. (New) The antibody or fragment thereof of claim 103, which is monoclonal.

107
195. (New) The antibody or fragment thereof of claim 103, which is selected from the group consisting of:

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

108
196. (New) The antibody or fragment thereof of claim 103, which is labeled.

109
197. (New) The antibody or fragment thereof of claim 108, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

110
198. (New) The antibody or fragment thereof of claim 103, which specifically binds to said polypeptide in a Western blot.

111
199. (New) The antibody or fragment thereof of claim 103, which specifically binds to said polypeptide in an ELISA.

200. (New) The antibody or fragment thereof of claim 191, which specifically binds to said polypeptide in a competitive-binding assay.

201. (New) The antibody or fragment thereof of claim 191, which specifically binds to said polypeptide in a radioimmunoassay.

202. (New) An isolated cell that produces the antibody or fragment thereof of claim 191.

203. (New) A hybridoma that produces the antibody or fragment thereof of claim 191.

204. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 191; and

b) detecting the DR4 protein in the biological sample.

205. (New) A composition comprising the antibody or fragment thereof of claim 191, and a carrier.

206. (New) The antibody or fragment thereof of claim 191, which is an antagonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

207. (New) The antibody or fragment thereof of claim 191, which is an agonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

208. (New) A method of producing the isolated antibody or fragment thereof of claim 191 comprising:

a) introducing an immunogenic epitope of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853 into an animal; and

b) recovering said antibody or fragment thereof ~~fragment.~~

209. (New) An isolated antibody or fragment thereof which specifically binds the full length polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 9 contiguous amino acids of said polypeptide.

210. (New) The antibody or fragment thereof of claim 209, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 15 ~~15-30~~ contiguous amino acids of said polypeptide.

211. (New) The antibody or fragment thereof of claim 209, which specifically binds a polypeptide selected from the group consisting of:

a) a polypeptide consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853;

b) a polypeptide consisting of the extracellular domain of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853;

c) a polypeptide comprising the amino acid sequence of at least 30 contiguous amino acids of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853; and

d) a polypeptide comprising the amino acid sequence of at least 50 contiguous amino acids of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

144
212. (New) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 9 contiguous amino acids of said polypeptide.

145 144
213. (New) The antibody or fragment thereof of claim 212, wherein said antibody or fragment thereof binds to an antigenic epitope-bearing polypeptide fragment ~~epitope~~ comprising at least 15 ~~15-30~~ contiguous amino acids of said polypeptide.

146 144
214. (New) The isolated antibody or fragment thereof of claim 212, wherein said antibody or fragment thereof specifically binds a polypeptide selected from the group consisting of:

a) a polypeptide consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853;

b) a polypeptide consisting of the extracellular domain of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853;

c) a polypeptide comprising the amino acid sequence of at least 30 contiguous amino acids of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853; and

d) a polypeptide comprising the amino acid sequence of at least 50 contiguous amino acids of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

119
215. (New) An isolated antibody or fragment thereof that specifically binds the mature polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853, as it is naturally expressed on the surface of a cell.

120
216. (New) The antibody or fragment thereof of claim 119, wherein said cell surface-expressed polypeptide is glycosylated.

121
217. (New) The antibody or fragment thereof of claim 119, which is polyclonal.

122
218. (New) The antibody or fragment thereof of claim 119, which is monoclonal.

123
219. (New) The antibody or fragment thereof of claim 119, which is selected from the group consisting of :

a) a chimeric antibody;

b) a Fab fragment; and

c) a $F(ab')_2$ fragment.

124 220. (New) The antibody or fragment thereof of claim 119 215, which is labeled.

125 221. (New) The antibody or fragment thereof of claim 124 220, wherein the label is selected from the group consisting of:

a) an enzyme;

b) a fluorescent label; and

c) a radioisotope.

126 222. (New) The antibody or fragment thereof of claim 119 215, which specifically binds to said polypeptide in a Western blot.

127 223. (New) The antibody or fragment thereof of claim 119 215, which specifically binds to said polypeptide in an ELISA.

128' 224. (New) The antibody or fragment thereof of claim 119 215, which specifically binds to said polypeptide in a competitive-binding assay.

129 225. (New) The antibody or fragment thereof of claim 119 215, wherein said antibody or fragment thereof specifically binds to said protein in a radioimmunoassay.

C

130
226. (New) An isolated cell that produces the antibody or fragment thereof of claim 119.

131
227. (New) A hybridoma that produces the antibody of fragment thereof of claim 119.

Sub E 10
228. (New) A method of detecting a DR4 protein in a biological sample comprising:

a) contacting the biological sample with the antibody or fragment thereof of claim 215; and

b) detecting the DR4 protein in the biological sample.

133
229. (New) A composition comprising the antibody or fragment thereof of claim 119, and a carrier.

230. (New) The isolated antibody or fragment thereof of claim 215, wherein said antibody fragment is an antagonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

231. (New) The isolated antibody or fragment thereof of claim 215, wherein said antibody fragment is an agonist of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853.

C

232. (New) A method of producing the antibody or fragment thereof of claim 215 comprising:

a) introducing an immunogenic epitope of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 97853 into an animal; and

b) recovering said antibody or fragment thereof.

233. (New) The antibody or fragment thereof of claim 84, which specifically binds a polypeptide selected from the group consisting of:

(a) a polypeptide consisting of amino acids 132 to 221 of SEQ ID NO:2;

(b) a polypeptide consisting of amino acids 35 to 92 of SEQ ID NO:2; and

(c) a polypeptide consisting of amino acids 114 to 160 of SEQ ID NO:2.

234. (New) The antibody or fragment thereof of claim 233, that specifically binds protein (a).

235. (New) The antibody or fragment thereof of claim 233, that specifically binds protein (b).

236. (New) The antibody or fragment thereof of claim 233, that specifically binds protein (c).

D' cont

237. (New) The antibody or fragment thereof of claim 234, that specifically binds protein (b).

34 20

238. (New) The antibody or fragment thereof of claim 101, which specifically binds a polypeptide selected from the group consisting of:

(a) a polypeptide consisting of amino acids 132 to 221 of SEQ ID NO:2;

(b) a polypeptide consisting of amino acids 35 to 92 of SEQ ID NO:2;

and

(c) a polypeptide consisting of amino acids 114 to 160 of SEQ ID NO:2.

Sub D2

239. (New) The antibody or fragment thereof of claim 238, that specifically binds protein (a).

240. (New) The antibody or fragment thereof of claim 238, that specifically binds protein (b).

241. (New) The antibody or fragment thereof of claim 238, that specifically binds protein (c).

242. (New) The antibody or fragment thereof of claim 239, that specifically binds protein (b).

54 38

243. (New) The antibody or fragment thereof of claim 117, which specifically

C

binds a polypeptide selected from the group consisting of:

(a) a polypeptide consisting of amino acids 132 to 221 of SEQ ID NO:2;

(b) a polypeptide consisting of amino acids 35 to 92 of SEQ ID NO:2;

and

(c) a polypeptide consisting of amino acids 114 to 160 of SEQ ID NO:2.

Sub D3

244. (New) The antibody or fragment thereof of claim 243, that specifically binds protein (a).

245. (New) The antibody or fragment thereof of claim 243, that specifically binds protein (b).

246. (New) The antibody or fragment thereof of claim 243, that specifically binds protein (c).

247. (New) The antibody or fragment thereof of claim 244, that specifically binds protein (b).

76 74

248. (New) The antibody or fragment thereof of claim 159, which is polyclonal.

C